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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,844	12/15/1999	SHIJUN YANG	DN97-038	1439

7590 09/17/2002

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EXAMINER

MEDLEY, MARGARET B

ART UNIT	PAPER NUMBER
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1714

12

DATE MAILED: 09/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MS 12

Office Action Summary

Application No.

09/445844

Applicant(s)

YANG et al

Examiner

WEDLEY

Group Art Unit

1714

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on April 1, 2002
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 3, 7 and 9-20 are is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 3, 7 and 9-20 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 01, 2002 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A specific ratio of inert filler is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The disclosure at page 10, lines 4-26 and Tables I and II demonstrate that fillers are required to enhance the visual differentiation between the cross linked polymer component and the thermoplastic matrix component to provide the "mineral like" or "granite-like appearance of the finished composite plastic composition.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 7 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minghetti et al 5,242,968, Ghahary 5,304,592 and Cozens et al 5,130,374.

Minghetti, note in the entirety; Ghahary, note column 1, lines 24-43, column 2, lines 20- 50, column, 3, lines 30-59 and column 4, lines 1-65; and Cozens et al, note column 2, lines 32-45, column 3, lined 63-68, and column 4, lines 1-65, teach and disclose acrylic thermoformable acrylic sheets, granite textured plastics and rigid thermoplastic compositions, process for producing the same that render the claimed composite plastics compositions, composite produced by said process for forming the same, extruded sheets and thermoformed product obvious. The prior art teach and disclose various cross-linked polymers and thermoplastic matrix within applicants claimed ranges, which render the claimed invention obvious. It is further noted that Cozens teaches and disclose a polymethylmethacrylate matrix having cross linked

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polymethacrylate particles disperse therein, note Table 1, particularly example 5, as well as, columns 5 and 6 for specific cross linkers and column 7, lines 20-27 for the ratio of cross linkers that render the instant claimed cross linkers obvious.

The thermoformable sheets of Minghetti used as anti-slip surfaces in bathtubs and shower stalls that are reprocessed, note abstract, column 2, lines 12-15, lines 38-44 and column 5, line 62 to column 6, lines 1-5, 24-29 and 43-47. It is also noted that at lines 65-68 of column 2 of Minghetti provide teachings and disclosure that the syrup or suspending medium together with the ground PMMA becomes thixotropic and advantageously does not permit the swollen particles to settle, thus achieving an even distribution. This teaching clearly rebuts applicants' argument that the PMMA polymer is critical for controlling the particle settling in the matrix. It is the **combination of the syrup or suspending medium together with the PMMA particles** that creates a thixotropic mixture preventing the particles from settling.

Ghahary explicitly provides teachings that granite-plastics are useful in molding and thermoforming and that the granite-plastics are a combination of thermoplastic and thermoset plastic in a thermoplastic matrix and the method of making said matrix, note the abstract, column 2, lines 30-66. Patentee further teaches that the granite-plastic composition is suitable for injection molding, blow molding, extrusion, etc, column 6, lines 1 to 18.

The prior art clearly teaches the artisan in the art that it would be reasonable to one of ordinary skill in the art that the thermoplastic matrix having particulate cross linked polymer dispersed therein of the prior art are within the ranges that encompass

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the ranges of the instant claims and that the composition is capable of multiple passes through extrusion or molding.

The prior art cited but not applied further teaches thermoplastic matrix having cross-linked polymers dispersed therein of the same nature as claimed by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is (703) 308-2518. The examiner can normally be reached on Monday-Friday from 7:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703 306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-0661.

Examiner Medley/ng
September 16, 2002


MARGARET MEDLEY
PRIMARY EXAMINER